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INTERNATIONAL SEARCH REPORT

PCT/IB 03/05214

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G09G3/36

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G09G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 6 232 944 B1 (OKUNO TAKESHI ET AL) 15 May 2001 (2001-05-15) abstract column 1, line 43 -column 2, line 38 column 17, line 52 -column 18, line 21; figures 4,5 column 20, line 5 -column 21, line 32; figures 6,7 column 38, line 31 -column 41, line 54; figures 32-38	1 3-7
A	US 6 421 038 B1 (LEE HYUN CHANG) 16 July 2002 (2002-07-16) abstract column 6, line 8 -column 7, line 64; figure 5 column 7, line 65 -column 9, line 28; figures 6,7	1-7
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 219 018 B1 (MATSUMOTO TOMOHIRO) 17 April 2001 (2001-04-17) column 4, line 61 -column 5, line 6; figure 4 column 6, line 12 -column 6, line 30; figures 1,2 -----	1,6,7

INTERNATIONAL SEARCH REPORT

PCT/IB 03/05214

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 6232944	B1	15-05-2001	JP	10161615 A	19-06-1998
			KR	264772 B1	01-09-2000
			TW	394917 B	21-06-2000
			US	6522318 B1	18-02-2003
			US	6633272 B1	14-10-2003
			US	6597337 B1	22-07-2003
US 6421038	B1	16-07-2002	KR	2000022668 A	25-04-2000
			DE	19944724 A1	03-08-2000
			FR	2783629 A1	24-03-2000
			GB	2341714 A , B	22-03-2000
			JP	2000137247 A	16-05-2000
			US	2001033266 A1	25-10-2001
US 6219018	B1	17-04-2001	JP	2000035560 A	02-02-2000
			TW	518441 B	21-01-2003